430
MEDICINE
NOTES

# GI BLEEDING

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# GI Bleeding

- The incidence is double in males than females
- The incidence increases with age
- Upper GI bleeding is 5 times more common than Lower GI bleeding
- Based on the clinical presentation→ mild to severe (e.g. shock)
- It's always a Medical emergency
- **Hematemesis** (Bloody vomitus (bright red or coffee-grounds))
    - Always means an upper source
- **Melena** ( Black, tarry, foul-smelling stool)
    - Usually means an upper source
- **Hematochezia** (Bright or maroon rectal bleeding).
    - Mostly, lower source
- **Fecal occult blood** (absence of visible bleeding)
    - Result from small amount of bleeding at any site in the gut.

**Causes:**

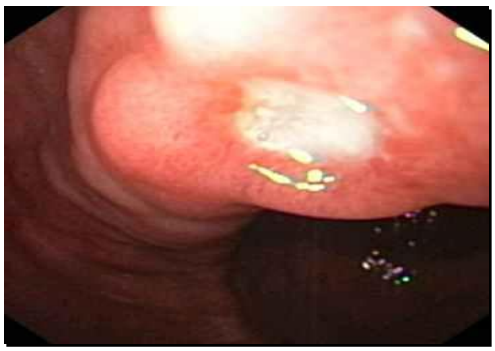
- Ulcerative, inflammation or erosion (peptic or gastric ulcers, esophagitis)
- Portal hypertension (Esophagogastric varices, Arterial, venous, or other vascular malformations)
- Tumors (benign→polyps, malignant →adenocarcinoma)
- Traumatic or post-surgical (Miscellaneous, **Mallory-Weiss tear**)

## UGIB

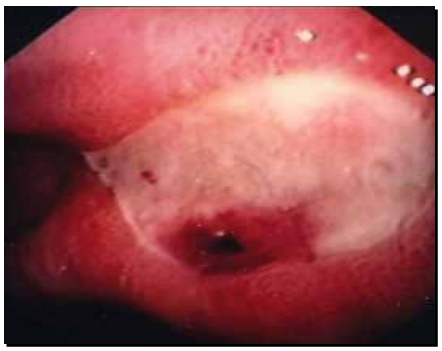
### 1- **Peptic ulcer disease (PUD)**

**The most common cause of UGIB**

Caused by: NSAIDS, H pylori, Due to; erosion of an artery in the base of the ulcer



Clean base ulcer, no bleeding



Visible bleeding, high risk pt.
**Stigmata of Recent Hemorrhage**

**2- Varices** (60% of decompensated (high risk) liver cirrhosis)
(Second most common cause of UGIB)

**3- Mallory-Weiss Tear** (Results from violent vomiting (*vomiting, retching, coughing, or straining*)
4- **Diverticulosis**

## LGIB

- **Adenocarcinoma of the colon**
- **Hemorrhoids**

**Diagnosis:**
**Take a good history**: (Nature of bleeding, Associated symptoms (Abd pain , Vomitting , change in bowel habit, wt loss. Fatigue, dizziness), Past GI history (GI bleeding, GI and liver diseases, abdominal surgery), Medications (e.g. aspirin, NSAIDS))

**Examination**: general and abdominal.

**Lab:** CBC:, PT, INR, PTT, Blood group and cross-match blood. Packed PBCs 4-6 units (depends on the severity of bleeding and result of Haemoglobin), BUN: may increase in upper GI bleeding (breakdown of blood proteins by intestinal bacteria and mild reduction in GFR).

- Endoscopy (upper GI endoscopy, colonoscopy etc)
- Angiography is needed if endoscopy field due to massive bleeding.

**Poor prognostic variable:**
(Blatchford criteria, Rockall score etc)
http://www.mdcalc.com/glasgow-blatchford-bleeding-score-gbs/
http://www.patient.co.uk/doctor/upper-gastrointestinal-bleeding-includes-rockall-score

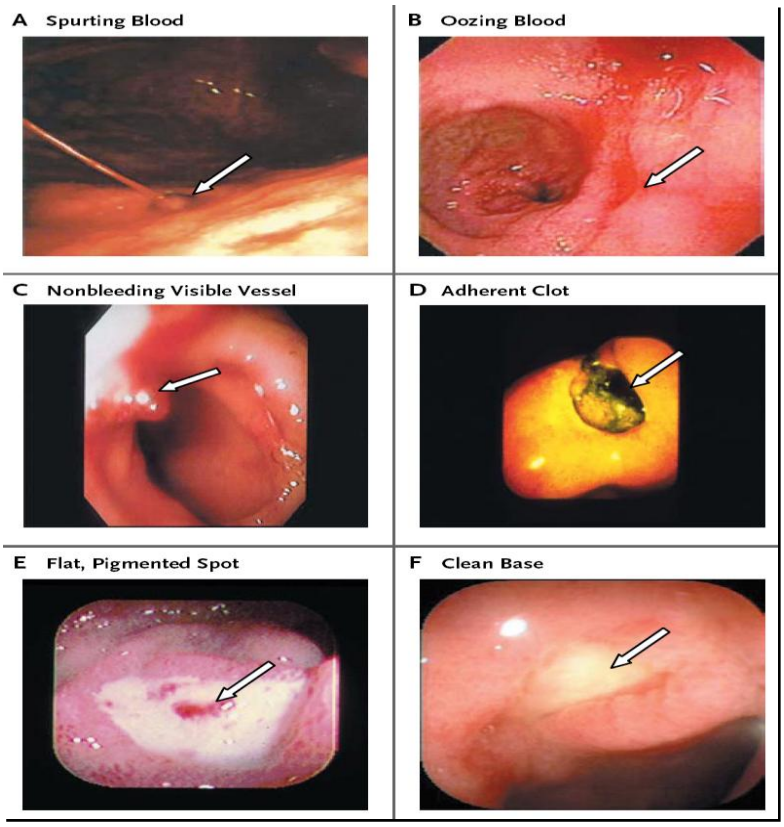
**Approach to patient with GI bleeding**
**1- Resuscitation & stabilization**

- **Assess hemodynamic status**
- HR, BP (hemodynamic status)
- **Orthostatic hemodynamic changes** (*postural tachycardia* (rise in pulse rate >15 beats/minute), *postural hypotension* (drop in systolic BP >10 mm Hg) on sitting or standing from supine position)
- **Orthostatic changes; (loss** of 10-20% of circulatory volume)
- The hematocrit may not fall immediately, even with massive bleed
- **Restoration of intravascular volume (urgent)**

- **IV access**: (2 large-bore intravenous-access catheters (e.g., 16 to 18 gauge), or central venous line for massive bleeding)
- **Fluids**: Saline or Ringer lactate solution,Volume; (depends on the hemodynamic status), Be careful with elderly and patients with CHF)
- Blood transfusion: in patient with severe bleeding or low hematocrit
- **Correction of coagulopathy:** (Fresh frozen plasma and platelets transfusion), in Patient with abnormal coagulation or, those who require transfusion of more than 10 units of packed RBCs.
- **Constant Monitoring**
- Adequate resuscitation is essential prior to endoscopy.
- **Treatment of GI bleeding**
    - Remember: This is **after adequate resuscitation and stabilization**).
- Goal to stop bleeding and prevent rebleeding.
- Pharmacologic (For PUD and most of the cases: Proton pump inhibitors (e.g. Esomeprazole, omeparazole, pantazole, etc) to suppress acidity, Usually IV
- For varices (e.g. known patient with cirrhosis) start octreotide or terlipressin + Antibiotics; any cirrhotic patient with GI bleeding)

2- Endoscopic (most important next step)

**Endoscopic injection therapy, Argon plasma coagulation (APC), Clipping a visible vessel / oozer, Variceal Band Ligation, Modified Sengstaken–Blakemore tube, transjugular intrahepatic portosystemic shunt (TIPS)**



3- Angiography (Severe, persistent bleeding when endoscopic therapy is unsuccessful or unavailable and surgery is too risky)

4- Surgical

- Need for surgery is steadily declining, probably as a result of the widespread use of acid-decreasing agents.
- For patient with bleeding difficult to control by endoscopy or recurrent bleeding

**Long-term management of GI bleeding**

- Treat underlying cause.
- Avoid risk factors (e.g. NSAIDs) or use with prophylaxis (proton pump inhibitor)
- Treat H. pylori
- For varices: repeat endoscopy for eradication, use B blockers, TIPS and transplant in some patients
- For lower GI bleeding: treat the underlying cause.

**Important to remember**

- Definitions, Causes
- Risk stratification
- Approach
- Stabilization and resuscitation
- History/Examination
- Important lab
- Treatment (pharmacologic, endoscopic, angiographic, surgical)
- Prevent recurrence

**MCQ website:**
**http://www.gastrotraining.com/mcq-page**